

WHAT IS CLAIMED IS:

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1. An electric terminal for an electronic device comprising:

an external electrode;

a lead member disposed on an internal electrode of the electronic device, at least a portion of said lead member being a conductor electrically connecting said external electrode and the internal electrode; and

a support member disposed on the electronic device in the vicinity of said lead member for supporting said external electrode at least upon application of an external thrust force which deforms said lead member.

2. The electric terminal as defined in claim 1, wherein said support member is in contact with said external electrode upon application of no external thrust force.

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3. The electric terminal as defined in claim 1, wherein said support member is out of contact with said external electrode upon application of no external thrust force.

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4. The electric terminal as defined in claim 1, wherein said external terminal includes a solder ball.

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5. The electric terminal as defined in claim 1, wherein
said external terminal includes a core, at least a portion of
which is covered by a solder coat.

6. The electric terminal as defined in claim 1, wherein
said external terminal includes a central core made of at least
one conductor material and covered by a solder coat, said
conductor material having a melting point higher than a
melting point of said solder coat.

7. The electric terminal as defined in claim 1, wherein
said external terminal includes a central core made of at least
one conductor material and covered by a solder coat, said
central core receiving therein an insulator.

8. The electric terminal as defined in claim 1, wherein
said lead member is made of a conductor.

9. The electric terminal as defined in claim 1, wherein
said lead member includes a conductor body formed by
plating.

10. The electric terminal as defined in claim 1, wherein
said lead member includes a conductor body formed
separately from and connected to the electronic device.

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11. The electric terminal as defined in claim 1, wherein said lead member is formed by etching a metallic film.

12. The electric terminal as defined in claim 1, wherein said lead member includes a wire.

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13. The electric terminal as defined in claim 1, wherein said lead member includes a wire covered by an insulator coat.

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14. The electric terminal as defined in claim 1, wherein said lead member includes a conductor bump at least a portion of which is made of solder.

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15. The electric terminal as defined in claim 1, wherein said lead member includes an insulator body having a through-hole filled with a plating conductor.

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16. The electric terminal as defined in claim 1, wherein said support member includes an insulator body patterned by a photolithographic technique.

Process

17. The electric terminal as defined in claim 1, wherein said supporting member includes a resin body formed by a transfer molding technique.

Process

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18. The electric terminal as defined in claim 17, wherein said supporting member is made by etching said resin body.

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19. The electric terminal as defined in claim 18, wherein said etching includes at least one of laser etching, wet etching and dry etching.

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20. The electric terminal as defined in claim 1, wherein said supporting member includes an insulator body having a through-hole through which said lead member passes.

21. The electric terminal as defined in claim 1, said supporting member is formed by patterning an insulator plate by an etching.

22. The electric terminal as defined in claim 21, wherein said etching is either laser etching, wet etching or dry etching.

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23. An electronic instrument comprising the electric terminal as defined in claim 1.

24. A method for forming an electric terminal on an electronic device comprising the steps of:

forming a lead member on an internal electrode of the

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Cat* 5 electronic device;

forming an external electrode on said lead member; and forming a support member on the electronic device in a vicinity of said lead member, said support member being in contact with said external electrode at least upon application of an external force which deforms said lead member.

25. The method as defined in claim 24, wherein said support member is in contact with said external electrode upon application of no external thrust force.

26. The method as defined in claim 24, wherein said support member is out of contact with said external electrode upon application of no external thrust force.

27. The method as defined in claim 24, wherein said external electrode includes a solder ball.

28. The method as defined in claim 24, wherein said external terminal forming step includes the step of covering a core with a solder coat.

29. The method as defined in claim 24, wherein said external terminal forming step includes the step of covering a conductor core with a solder coat, said conductor core having

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a melting point higher than a melting point of said solder coat.

30. The method as defined in claim 24, said external terminal forming step includes the step of covering an insulator core with a solder coat.

31. The method as defined in claim 24, wherein said lead member forming step includes the step of covering a conductor core with a plating coat.

32. The method as defined in claim 24, wherein said lead member forming step includes the step of forming a conductor body and attaching said conductor body to the electronic device.

33. The method as defined in claim 24, wherein said lead member forming step includes the step of etching a metallic film formed on the electronic device.

34. The method as defined in claim 24, wherein said lead member forming step includes the step of wire bonding.

35. The method as defined in claim 24, wherein said lead member includes a wire covered with an insulator coat.

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36. The method as defined in claim 24, wherein said lead member includes a conductor bump at least a portion of which is made of solder.

37. The method as defined in claim 24, wherein said lead member forming step includes the step of filling a through-hole of an insulator film with a plating conductor.

38. The method as defined in claim 24, wherein said support member forming step includes the step of patterning an insulator body by a photolithographic technique.

39. The method as defined in claim 24, wherein said supporting member forming step includes a transfer molding step.

40. The method as defined in claim 39, wherein said supporting member forming step includes etching a resin body formed by said transfer molding step.

41. The method as defined in claim 40, wherein said etching includes at least one of laser etching, wet etching and dry etching.

42. The method as defined in claim 24, wherein said

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(cmt) supporting member forming step includes the steps of disposing an insulator body having a through-hole.

43. The method as defined in claim 24, said supporting member forming step includes the step of etching an insulator plate formed on the electronic device.

44. The method as defined in claim 24, wherein said etching includes at least one of laser etching, wet etching and dry etching.

45. The method as defined in claim 24, further comprising the step of mounting the electronic device on a circuit board by using said electric terminal.